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ABSTRACT

A number of issues related to the development of evaluation methodology are discussed. These issues are as follows: the definition of the purpose, general strategies for the development of methodology, and methodological research. The evaluation methodology developed is for the purpose of providing data for decision making. Some specific implications for the use of the evaluation methodology are: the goals evaluated should be the decision maker's goals for the enterprise; the variables measured should be those of concern to the decision maker; and the observational techniques used should possess decision-maker validity. (Author/CK)

SOME OVERLOOKED IMPLICATIONS OF THE PURPOSE:

TO PROVIDE DATA FOR DECISION MAKING

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INTRODUCTION

Some evaluation methodology has been produced for the purpose of providing data for decision making. Unfortunately not all of this methodology has attended to some important implications of this purpose. This paper attempts to identify these overlooked implications and discuss their impact on the development of evaluation methodology where the word methodology is defined as a systematic, operationalized, standardized set of rules and procedures designed to accomplish a defined purpose.

The paper deals with a number of issues related to the development of methodology. These issues are as follows: the definition of the purpose, general strategies for the development of methodology, and methodological research. These topics will be considered in the context of the development of evaluation methodology.

Toward a Definition of the Purpose

If the purpose of evaluation is to provide data for decision making the implication is that in a successful evaluation the data is actually used in the decision making process. If the data is actually used there is the implication that it is used by decision makers, i.e. real people who used the data produced by the evaluation for their decision making purposes. There is a further implication that successful evaluation methodology produces evaluation designs that produce data that is actually used for decision making by the decision makers for whom the data was collected.

If a datum produced by the evaluation is used by a decision maker one can say that the datum has decision maker validity for that decision maker. If a decision maker does not use a datum presented to him then the datum lacks decision maker validity. Evaluation methodology should attempt to maximize decision maker validity in evaluation designs and the data produced.

Perfect (100%) efficiency in an evaluation design would exist where for every decision maker for whom data were provided every datum was used by that decision maker in his decision making. Zero efficiency would exist where no datum was used by any decision maker. Thus, if the use of data for decision making were observable the efficiency of an evaluation design could be quantified by observing the percentage of the data presented that was actually used by decision makers.

Development of Methodology

Given a defined purpose it becomes possible to develop systematic, standardized, operationalized rules and procedures for the accomplishment of the purpose. The definition of the purpose provides for the logical testing of alternative procedures. For example, if the evaluator provides data to a decision maker where the data are not relevant to the decision maker's intents for that enterprise, then the decision maker will consider the data irrelevant and he will not use the data in his decision making processes. The purpose of the evaluation will have failed and the resources spent on the evaluation will have been wasted.

Once rules and procedures for an evaluation methodlogy have been developed to the point where no logical flaws can be identified it becomes reasonable to perform research on the methodology. Methodological research is also made possible by the existence of defined criteria for success. The most parsemonious first methodological research is a decision oriented field test.

In a field test the methodology is implemented in a single situation.

Observations are made on whether the steps of the methodology can be performed. Finally, the percent of data that was actually used in the decision making process by the persons for whom the data was developed is observed. If a step in the methodology fails to work it can be redesigned and retested. If the methodology is totally successful then it cannot be said that it would be successful for other decision makers or other enterprises.

When decision oriented methodological research no longer uncovers methodological problems the researcher moves to conclusion oriented methodological research. He has two options. He can replicate the application of the methodology over a diversified set of enterprises and decision makers. If it is successful every time it can be considered complete. If at any point it fails, the methodology can be redesigned to avoid future failure. The other option is to draw a random sample of decision makers and enterprises and use inferential statistical approaches.

The existence of a defined purpose is the key to methodological development. It provides the criteria for logically testing alternative steps in the methodology. It provides the criteria for a field test of the methodology. It provides the criteria for conclusion oriented methodological research. A defined purpose makes possible the systematic development of a set of rules and procedures to accomplish that purpose.

Completeness of Data Provided

There may be other criteria for evaluation methodology in addition to the percent of data actually used by the decision makers for whom the data were collected. If a decision maker for whom data are collected makes decisions where no data were used to assist in his decision making process then the evaluation is incomplete. The evaluation is incomplete to the extent that decisions are made without the help of data. If we can know what decisions are made with and without data then the percent of decisions made without data is

a quantification of the incompleteness of the evaluation.

However, the resources available for evaluation become a possible constraint upon completeness. The resources for evaluation are generally limited to the point where 100 percent completeness is impossible. In this most likely situation the maximum completeness within the resource constraint is desired. Furthermore, the evaluation should distribute the completeness such that data is provided for the decision maker's more important decisions and not provided for the least important decisions. If we could know the decision maker's decisions prioritorized by importance then the correlation between the priorities and whether or not data was provided would be a quantification of the focus of the completeness. This criteria also suggests that the decision maker's priorities should be built into the evaluation design so that the highest possible degree of focus can be assured. The use of the decision maker's priorities should be built into the operationalized steps of evaluation methodology.

Decision Maker Validity Within Steps of Methodology

The criteria of efficiency, the percent of data used by the decision maker is a very useful criteria for identifying the essential steps of an evaluation methodology designed to provide data for decision making. It suggests that the methodology should ensure at every step that decision maker validity is preserved in the evaluation design.

Every person who will be provided with the data produced by the evaluation should be treated as a decision maker and concern for decision maker validity should govern what data should be presented to each person. If the report to the decision maker has ten useful data items hidden among 1,000 non-useful data items there is a considerable chance that the decision maker will not be willing to dig out the data that he would otherwise find useful.

The person who has legal control of the evaluation resources at the time of

hiring the evaluator should determine which decision makers should be presented with data developed for their decision making and the priorities among them such that the completeness across decision makers is allocated according to the desirability of their receiving data. The evaluator should assist by presenting alternatives such that a decision to not provide a person with data is a deliberate decision rather than oversight.

If decision maker validity is to be preserved the data collected for a particular decision maker must be perceived by that decision maker to be relevant to his intents or goals for that enterprise. That is, the data must help him to make decisions so that he can try to cause the enterprise to accomplish the things he really wants the enterprise to accomplish for himself and others. Different decision makers will have different intents for the same enterprise. The listed project goals will most likely fail to include some of any particular decision maker's goals (i.e. be incomplete) and may include some goals that he does not hold (i.e. be inefficient). This is particularly an issue when the decision maker had no part in preparing the project proposal.

The enterprise should be evaluated in terms of its parts so that the decision maker can identify the troublesome areas. Further, these parts must be meaningful to the decision maker. If the evaluator reports data on the school/society interface and this concept has no meaning for the decision maker, then he will have a hard time using the data.

The specific evaluative variables must be the decision maker's operationalizations of the vague terms in his goals. Not everyone wanting students to be "good citizens" means the same thing. The goal "individualized instruction" has, perhaps, more different meaning. And "positive self concept" may well have a different meaning for every person who uses the term. If we wish to maximize decision maker validity through the efficiency of the evaluation design then

evaluation methodology must ensure that we deal with the decision maker's meaning in the selection of specific evaluative variables.

Decision maker validity may be thwarted through inappropriate observational techniques. The observational technique should be carefully explained to the decision maker. When he says "I don't trust a teacher's log for that kind of data," use a different technique. If the decision maker is unaware of the observational techniques used it makes it easy for him to ignore data that may make him feel uncomfortable. It is very hard for a decision maker to ignore data he has said that he would use when it is collected in a manner that he has approved. The approval of the decision maker must be a commitment and not merely a verbalization.

Assuming that the evaluation design has not lost decision maker validity through any of the problems described above the evaluator's last chance to confuse the decision maker is in data analysis. If the decision maker is unsophisticated in multivariate analysis (and most decision makers are unsophisticated) he can report the data in terms of eigenvalues, percent of trace, discriminant vectors, and Beta weights. If the evaluator interprets the meaning of analyses then the data presented to the decision maker is the evaluator's interpretation. This kind of data frequently lacks decision maker validity although this may not be obvious to the evaluator since the decision maker may wish to spare his feelings.

Sometimes the evaluator will explain a statistical technique to the decision maker, e.g. a thirty minute short course in multiple regression. Teaching an analysis is a solution to this problem only when the necessary understanding is genuinely developed prior to deciding upon that form of analysis.

SUMMARY

Some evaluation methodology has been developed for the purpose of providing data for decision making. Unfortunately not all of this methodology has attended to some important implications of this purpose. The purpose is fulfilled if, and only if, the data provided is actually used in the decision making process. To the extent that (a) the evaluation produces data that is not used, that evaluation is wasteful; and (b) the evaluation produces no data for some decisions that needed to be made, it is incomplete.

More importantly, however, it is necessary to take account of the fact that decision makers are real people. If the person or persons for whom the data is collected do not believe in the utility of the data provided they will ignore that data, the evaluation resources used to generate that data will have been wasted, and the purpose for the evaluation will have failed. An evaluation methodology that does not assure that the data will be used does not accomplish the purpose: to provide data for decision making.

Some specific implications of the above for evaluation methodology are as follows: the goals evaluated should be the decision maker's goals for the enterprise, the variables measured should be those of concern to the decision maker, the observational techniques that are used should possess decision maker validity: the enterprise should be evaluated in terms of its parts as conceptualized by the decision maker, any data analysis performed should be comprehensible to the decision maker by the time that analysis is presented to him.